

### All Aluminium Stranded Conductor (AAC)



**Construction :** AAC is stranded concentrically by aluminium wires with same nominal diameter.



**Application :** The AAC is suitable for power transmission and distribution for short span, such as low voltage lines, linking bridges between the dead-end clamps of the high voltage lines, high voltage bus-bars at substations.



**Operating Temperature:** Max permissible continuous operating temperature of conductor shall not exceed 90°C.



**Standard :** ASTM B231, BS 215, DIN 48201, IEC 61089, GB/T 1179 or other standards required by customers



**Packing:** steel/wooden reel, wooden reel or steel reel.



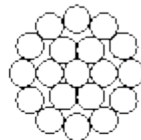
### Mechanical Property of AAC

Composition	Final modulus of elasticity Mpa	Coefficient of linear expansion /°C	Composition	Final modulus of elasticity Mpa	Coefficient of linear expansion /°C
7	60000	23.0X10 <sup>-6</sup>	61	54000	23.0X10 <sup>-6</sup>
19	57000	23.0X10 <sup>-6</sup>	91	52500	23.0X10 <sup>-6</sup>
37	57000	23.0X10 <sup>-6</sup>	127	50000	23.0X10 <sup>-6</sup>

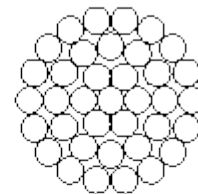
### Construction of All Aluminium Stranded Conductor



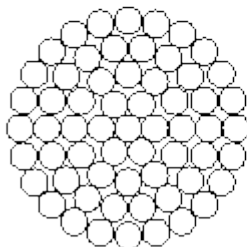
**7 Strand**



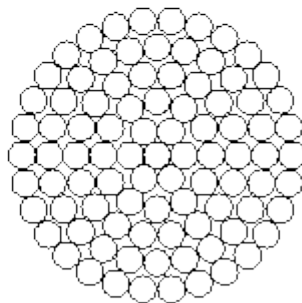
**19 Strand**



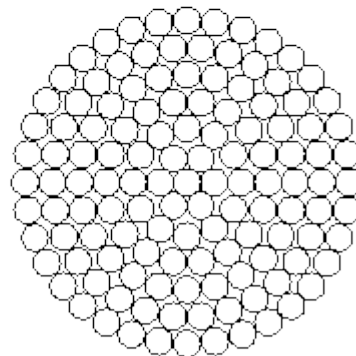
**37 strand**



**61Strand**



**91 Strand**



**127 strand**

**AAC American Standard ASTM B231**

Code Word	Size	Stranding No./Diameter	Code Word	Size	Stranding No./Diameter
	AWG or kcmil	No./mm		AWG or kcmil	No./mm
Peachbell	6	7/1.56	Nasturtium	715.5	61/2.75
Rose	4	7/1.96	Violet	715.5	37/3.53
Iris	2	7/2.47	Cattail	750	61/2.82
Pansy	1	7/2.78	Petunia	750	37/3.62
Poppy	1/0	7/3.12	Lilac	795	61/2.90
Aster	2/0	7/3.50	Arbutus	795	37/3.72
Phlox	3/0	7/3.93	Snapdragon	900	61/3.09
Oxlip	4/0	7/4.42	Cockscomb	900	37/3.96
Valerian	250	19/2.91	Goldenrod	954	61/3.18
Sneezewort	250	7/4.80	Magnolia	954	37/4.08
Laurel	266.8	19/3.01	Camellia	1000	61/3.25
Daisy	266.8	7/4.96	Hawkweed	1000	37/4.18
Peony	300	19/3.19	Larkspur	1033.5	61/3.31
Tulip	336.4	19/3.38	Bluebell	1033.5	37/4.25
Daffodil	350	19/3.45	Marigold	1113	61/3.43
Canna	397.5	19/3.67	Hawthorn	1192.5	61/3.55
Goldentuft	450	19/3.91	Narcissus	1272	61/3.67
Syringa	477	37/2.88	Columbine	1351.5	61/3.78
Cosmos	477	19/4.02	Carnation	1431	61/3.89
Hyacinth	500	37/2.95	Gladiolus	1510.5	61/4.00
Zinnia	500	19/4.12	Coreopsis	1590	61/4.10
Dahlia	556.5	19/4.35	Jessamine	1750	61/4.30
Mistletoe	556.5	37/3.12	Cowslip	2000	91/3.77
Meadowsweet	600	37/3.23	Sagebrush	2250	91/3.99
Orchid	636	37/3.33	Lupine	2500	91/4.21
Heuchera	650	37/3.37	Bitterroot	2750	91/4.41
Flag	700	61/2.72	Trillium	3000	127/3.90
Verbena	700	37/3.49	Blue Bonnet	3500	127/4.22

**AAC British Standard BS 215 – Part 1**

Code Word	Size	Stranding No./Diameter	Code Word	Size	Stranding No./Diameter
	sq. mm	No./mm		sq. mm	No./mm
Midge	22	7/2.06	Cricket	150	7/5.36
Aphis	25	3/3.35	Hornet	150	19/3.99
Gnat	25	7/2.21	Caterpillar	175	19/3.53
Weevil	30	3/3.66	Chafer	200	19/3.78
Mosquito	35	7/2.59	Spider	225	19/3.99
Ladybird	40	7/2.79	Cockroach	250	19/4.22
Ant	50	7/3.10	Butterfly	300	19/4.65
Fly	60	7/3.40	Moth	350	19/5.00
Bluebottle	70	7/3.66	Drone	350	37/3.58
Earwig	75	7/3.78	Locust	400	19/5.36
Grasshopper	80	7/3.91	Centipede	400	37/3.78
Clegg	90	7/4.17	Maybug	450	37/4.09
Wasp	100	7/4.39	Scorpion	500	37/4.27
Beetle	100	19/2.67	Cicada	600	37/4.65
Bee	125	7/4.90	Tarantula	750	37/5.23

**AAC German Standard DIN 48201**

Size	Stranding No./Diameter	Size	Stranding No./Diameter	Size	Stranding No./Diameter
sq. mm	No./mm	sq. mm	No./mm	sq. mm	No./mm
16	7/1.70	95	19/2.50	400	61/2.89
25	7/2.10	120	19/2.80	500	61/3.23
35	7/2.50	150	37/2.25	625	91/2.96
50	7/3.00	185	37/2.50	800	91/3.35
50	19/1.80	240	61/2.25	1000	91/3.74
70	19/2.10	300	61/2.50	---	---

**AAC International Standard IEC 61089**

Size	Stranding No./Diameter	Size	Stranding No./Diameter	Size	Stranding No./Diameter
sq. mm	No./mm	sq. mm	No./mm	sq. mm	No./mm
10	7/1.35	200	19/3.66	710	61/3.85
16	7/1.71	250	19/4.09	800	61/4.09
25	7/2.13	315	37/3.29	900	61/4.33
40	7/2.70	400	37/3.71	1000	61/4.57
63	7/3.39	450	37/3.94	1120	91/3.96
100	19/2.59	600	37/4.15	1250	91/4.18
125	19/2.89	560	37/4.39	1400	91/4.43
160	19/3.27	630	61/3.63	1500	91/4.58

**AAC Chinese Standard GB/T 1179**

Size	Stranding No./Diameter	Size	Stranding No./Diameter	Size	Stranding No./Diameter
sq. mm	No./mm	sq. mm	No./mm	sq. mm	No./mm
16	7/1.70	120	19/2.85	400	37/3.70
25	7/2.15	150	19/3.15	500	37/4.16
35	7/2.50	185	19/3.50	630	61/3.63
50	7/3.00	210	19/3.75	800	61/4.10
70	7/3.60	240	19/4.00	---	---
95	7/4.16	300	37/3.20	---	---